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ABSTRACT

This study evaluates the effects of the Advanced Placement (AP) Program in the lives of students and investigates the validity of the Advanced Placement Examinations at participating colleges and universities. Nine of the colleges and universities that received the most AP candidates in 1982 were selected for the study. The transcripts of a large number of students were retrieved, and 278 students were interviewed. Based on the data from the institutions and also on the basis of information provided by the students, it is concluded that: (1) Overall, AP candidates who are placed ahead in the field of their "qualifying" AP Examinations do better than a generality of local upperclassmen in those courses. The placement and credit policy suggested to colleges by the Advanced Placement Program seems justified and appropriate for the colleges in this study; (2) AP candidates react very positively to the AP experience; (3) The difficulties encountered in collecting the necessary data to compare the achievement of AP students and upperclassmen have prompted a number of suggestions that colleges may wish to consider; and (4) Comments by AP students have generated a set of recommendations for colleges to foster a smooth transition for future AP candidates. The need for an official AP coordinator in colleges to serve both students enrolling with AP experience and the faculty is emphasized. (JAZ)

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College Board Report

No. 86-6

ADVANCED PLACEMENT REVISITED

Patricia Lund Casserly

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Advanced Placement Revisited

Patricia Lund Casserly

College Board Report No. 86-6
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College Entrance Examination Board, New York, 1986

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INTRODUCTION

> "I had to come [to the interview] because they told me you're the person who wrote that article they handed out at school to inveigle us to opt for Advanced Placement. Of course, I'd already heard about it from an uncle who took it *years* ago. . . ."

The young man who greeted me with these words was perhaps unaware that the report he referred to was based on interviews with students who were contemporaries of his uncle, or else he was too gracious to say so. That report, *What College Students Say About Advanced Placement*, based on interviews with several hundred college seniors and several scores of freshmen, was conducted 20 years ago during the 1966–67 academic year. Most of the interviewees had entered college in 1963. Since its publication, over 400,000 copies of the report have been used to tell the story of the College Board's Advanced Placement (AP) Program from the student participants' point of view. In the intervening years, other researchers, teachers, administrators, and I have watched participants in the Program in various ways, and the observations and experiences of those students who entered college in 1963 seem to remain true. But there has been no similar formal, large-scale study specifically directed toward assessing AP outcomes in two decades.

It seemed to me that a two-pronged study was in order: on the one hand, to examine the validity of AP Examination grades as indicators of students' readiness to undertake certain advanced sequent courses as freshmen; on the other, to examine the larger role of the Program in their lives.

In 1963, 21,769 students from 1,681 high schools took 28,762 Advanced Placement Examinations and had the results sent off to 765 colleges. The mid-sixties were turbulent times, especially for young adults who were challenging the legitimacy of the Viet Nam war, experimenting with alternative life-styles, and questioning some of the basic assumptions of the educational system and society at large. At the time of the earlier study, much to my surprise — but not to that of college administrators — every student scheduled for an interview showed up, despite sit-ins, marches, rallies, and various other campus disruptions that coincided with my visits. They came, they said, because the Advanced Placement Program had been such a positive part of their lives.

Now it is 20 years (and approximately 2 million Advanced Placement Examinations) later. (In 1982, the year in which the subjects of this study entered college, 141,626 students participated in the Advanced Placement Program and sat for 188,933 AP Examinations. They had attended 5,525 high schools and sent the results of the Advanced Placement Examinations to 1,976 colleges and universities.) American society has become more conservative both socially and financially. While many of their elders worry about balancing the national budget, or at least reducing the national deficit, many college students worry about having enough money for college and about job opportunities after graduation. Thus the Program has grown to assume an important part in many more students' lives, for economic as well as intellectual reasons.

Over the years, as secondary educators have become more experienced with the Program and more willing to offer appropriate challenges to their most able and ambitious students, whatever the students' age, AP courses have opened up to increasingly younger students. It is no longer uncommon for high school students to study AP biology in their sophomore year, to take several more AP courses as juniors, and to add more AP courses in their senior year. Indeed, AP courses are being offered by correspondence and mentorship programs to gifted and highly motivated thirteen- and fourteen-year-olds by the Johns Hopkins Center for Talented Youth and the Duke University Talent Identification Program. (By and large, the average AP Examination grade of young AP participants is higher than it is for older participants in the same subjects.)

It is clearly time for another systematic evaluation of the Advanced Placement Program in the lives of students, and it is clearly time to initiate a rolling series of studies of the validity of the Advanced Placement Examinations at participating colleges and universities. (A first step in the latter task is to ascertain how easy it is to retrieve the necessary data for such studies.) For it is time to make sure that the Program continues to serve its constituents as well as it has in the past.

When the Program was new and colleges were receiving their first Advanced Placement candidates, each institution automatically received the candidates' examination booklets so that individual professors or departments in the various disciplines could review the individual student's free response answers and judge for themselves the quality of the AP candidates' work. As the years went by and the number of Advanced Placement candidates grew, familiarity bred respect, not only for what the Advanced Placement candidates had achieved but also for the grading standards of the Advanced Placement Examinations' readers. Since the beginning of the Program, local validity studies at colleges and universities have demonstrated repeatedly that Advanced Placement candidates as a group do as well as or better in sequent advanced courses than students who have taken their introductory course in college. Over the years, individual professors and their departments have become willing to accept the Advanced Placement readers' judgments about the level of achievement the candidates have demonstrated, and many find it no longer necessary to review each examination before credit or placement can be awarded. At steadily increasing numbers of campuses, awards of placement and credit have become "automatic" upon the registrars' receipt of the Advanced Placement grade report, and thus a more easily measured influence of the Program on students' lives.

The growth of the Advanced Placement Program has been so steady and strong, and college policies have become so institutionalized, that it seems possible that Advanced Placement participants might suffer from being taken for granted. In addition, it seems possible that recently formulated policies to reintroduce rigor and serious learning may

have been doing injustice to the already fashioned academic strength being brought to colleges and universities through the Program. This, therefore, seems a particularly good time to review the issues I studied nearly two decades ago.

PROCEDURE

Sample Selection: Colleges and Universities

For this validity study I selected institutions from among those 100 colleges and universities that received the most Advanced Placement candidates and examination grade reports in 1982 and that, according to College Board policies, were considered "participants" in the Program:

> Under the definition of "participant" in the Advanced Placement Program are included colleges that normally award appropriate credit and placement for examination grades of 3 or better (1) for 70 percent or more of the examinations (with Latin and physics C examinations counting as one-half each); or (2) for those examinations that, at the former national administration, accounted for 70 percent or more of the candidacies. Under this definition an institution is expected to establish a reasonable level of expectation of candidate performance (grades of 2 or 3) and to offer credit and/or placement in 15 of the Advanced Placement Examinations or in some group of examinations that accounted for 70 percent or more of the candidacies in the previous administration.

Colleges and universities that do not grant credit or placement for most Advanced Placement Examination grades of 3 and higher were eliminated from the potential sample. Plainly, one cannot measure the validity of the AP readers' grading practices if colleges don't accept and act on the recommendations. Then, after consultation with Harlan P. Hanson, director of the Advanced Placement Program at the College Board, and with Advanced Placement staff in regional College Board offices, we stratified the potential sample of college campuses by College Board region. Regions were to be represented by one or two universities depending on the volume of Advanced Placement activity as measured by candidacies produced and candidacies received within each College Board region. Two institutions were chosen from the Southern, Midwestern, Middle States, and Western regions, and one institution was chosen from both the New England and Southwestern regions. (More than midway through the academic year, one of the universities in the Middle States had to drop out because it was initiating a new computer system that made it impossible to retrieve the statistical information we needed within the necessary time limit.)

The participating universities and my collaborators at each were:

University of California, Los Angeles
Dr. Rae Lee Siporin, Director of Admissions
and Ms. Linda Mintz, graduate student

Clemson University
Dr. Jerome Reel, Vice Provost for Undergraduate Studies
and Dr. James Maddox, Director of Admissions

Duke University
Dr. Harry DeMik, Director of Records and Registration

Indiana University (Bloomington)
Dr. Donald Brineman, Coordinator, Advanced Placement, Credit and Examination Program

University of Michigan
Dr. Donald Swain, Associate Director of Admissions

New York University
Dr. Harold Doughty, Director of Admissions

University of Oregon
Dr. James Buch, Dean of Admissions

Southern Methodist University
Dean George Zeiss, Dean of Summer Session
and Dr. Charles Kettlewell, Registrar

University of Vermont
Dr. Thomas Clairmont, Associate Registrar

I am grateful to these educators and their staffs because they retrieved hundreds, and in some cases well over a thousand transcripts in order to provide information on awards of placement and credit for all Advanced Placement candidates who entered their institutions in 1982. They also did their best to retrieve end-of-course data so that comparisons could be made between the performance of Advanced Placement and non–Advanced Placement students. (Success in retrieving the necessary information varied greatly from campus to campus.) In addition, they found, recruited, and scheduled appointments with the students I wanted to interview.

Sample Selection: Student Interviewees

For the second part of the study I wanted to interview at least 20 students at each campus who had entered in 1982. At four of the institutions, I chose a list of students from rosters of 1982 AP candidates generated by Educational Testing Service (ETS). At three other institutions, the administrator chose the students to be interviewed according to my guidelines. At one other institution, I selected some students, and others responded to an invitation to participate that was published in the student newspaper. At New York University, I experienced delays in collecting the data on AP students' subsequent performance in advanced sequent courses that I wished to have in hand before the interview. These delays, combined with other demands on my travel schedule, meant that I was unable to talk with AP students there. At each of the eight other institutions where I conducted interviews, I took care that the participating students were balanced evenly between the sexes and between students with many or few AP Examinations on their records. Participants were chosen who

represented "qualifying" achievement (i.e., grades of 3) on AP Examinations in as many fields as possible.

When I interviewed the students during the 1983–84 academic year, slightly less than two-thirds were sophomores, one third were juniors, and 13 had gained senior status by their third semester at college (through a combination of AP credits, other credits, and a summer school course or two). All participants had received at least one AP grade of 3. The majority (81 percent) had written two or more AP Examinations, and a number had written seven or eight – all with grades of 3 or higher. On the other hand, 36 students had received a grade of 2, and four students had received a grade of 1 on an AP Examination (other than the one with a grade of 3 that merited their inclusion in this study). The distribution of the fields in which AP Examinations were written generally followed the distribution of the fields for the Program as a whole. That is, American history, calculus AB and BC, and the English examinations (in language and in literature) were most popular, whereas only a comparative handful of students had written AP Examinations in music theory or Latin (Catullus-Horace) or had submitted portfolios for studio art: drawing.

About one-fifth of the participants had completed additional AP courses in high school but, for one reason or another, failed to take the relevant AP Examinations. All in all, the group of participants in this study was fairly representative of the larger population of "qualified" participants (i.e., those with examination grades of 3 or higher) in the AP Program, although the sample was slightly skewed toward students with heavy involvement and success in AP.

On each campus I visited, it proved impossible to limit the interviews to 20 students, as I had planned. Students who had heard or read about the project wanted to make their experiences and suggestions known. So instead of the 160 students anticipated, 278 presented themselves – or were suggested – for interviews. I noticed no differences of experiences with or attitudes toward the Program between those who volunteered for interviews and those who were invited at random from stratified samples. On several campuses I had informal talks – during mealtimes, in book stores, and at other odd moments – with AP students who had not entered in the target year. These casual meetings are not represented in Table 1, which indicates only the number and sex of Advanced Placement candidates who were formally interviewed on each campus.

The formal interviews with students lasted from 30 minutes for individual interviews to over an hour for group interviews. I began each interview with a general statement about the Program. I said that the Advanced Placement Program existed to serve able and highly motivated students like themselves, and that the College Board wanted to learn from them how well it was serving them. I asked them to spell out what the Program had meant in their lives and, through me, to tell schools and colleges how they could strengthen the Program and adapt their policies and practices to better serve future Advanced Placement participants.

Table 1. Number of Students Interviewed by Sex Within College

	Male	*Female*	*Total*
Southern Methodist University	14	13	27
University of Vermont	10	15	25
University of Oregon	13	11	24
University of California, Los Angeles	19	16	35
University of Michigan	28	30	58
Clemson University	20	15	35
Indiana University (Bloomington)	17	14	31
Duke University	22	21	43
Total	143	135	278

During my campus visits I also spoke with a few administrators and faculty members who were involved with particular aspects of the AP Program or with their institution's policy toward AP candidates. At most colleges these conversations were initiated by local educators. However, in one or two cases I initiated the interchange because I needed clarification of points raised by the AP student interviewees. Although the concerns of administrators and the perceptions (or misconceptions) of professors about the Program were not a specific focus of this study, I have included some comments that seem relevant to validity studies or to themes raised by the AP students.

The results of the study and related discussion are presented in the following two sections. The first section addresses topics related to the validity of AP grades of 3 or higher as indicators of readiness for placement in advanced courses and includes a review of our data-gathering procedures and what we learned in the process; a presentation of the data comparing AP students' achievement in advanced courses with that of upperclassmen; and a discussion of the results and the limitations of such comparisons under the best of circumstances. The first topic may help colleges wishing to carry out their own studies to design systems that make it easy to do so. The second should reassure readers that the Program's recommended policy is sound. The third suggests that some traditional statistical analyses of such data can exhibit more sophistication than good sense.

The second section presents the AP students' evaluations of their AP experiences, starting with what led to their involvement in AP courses and going to their thoughts about the outcome in college – both academic and nonacademic – that resulted from their participation in the program in high school. It also includes some wonderfully firm if misplaced admonitions to the College Board to establish or expand the Program in all U.S. schools by fiat!

In the last section I bring together and review the recommendations that are made throughout the report in the results and discussion sections that will help colleges wanting to better serve their AP candidates.

VALIDITY DATA ON AP CANDIDATES PLACED AHEAD

Collecting the Requisite Information

In this section I will review my method of data collection briefly and comment on the problems that some campus colleagues and I uncovered in the process. If some of these problems are solved by changes in the way institutions store and retrieve records, future researchers will find it easier to conduct validity studies. Other observations may serve to remind researchers of possible confounding variables in such studies.

The first step in the data collection was to generate, from ETS summer 1982 rosters, rosters that listed the AP summary records of students who had asked that their AP results be sent to any of the eight colleges in the study. Each roster gave a cumulative record of each student's AP Examination grade(s) and left space for someone at the college or university to indicate whether credit and/or placement had been awarded and, if so, accepted by the student. If the student continued in the field of an AP Examination during the first year or year and a half of college, I asked for the course designation and the student's final grade.

Some students changed their minds between early summer (when ETS generates college rosters) and the fall about which colleges they would attend. This meant that some of the students listed on each roster might have decided to go elsewhere. That was no problem. The problem arose, rather, in trying to identify the AP candidates who were not on the roster because they had decided, at the last minute, to enroll in one of the colleges on my list. Colleges receive an ETS roster in the summer and generally process AP candidates at the same time. Then, they generate their counts of how many AP candidates and AP Examinations they processed at that time. But is is not always easy for colleges to identify "stragglers." Some registrars provided information on as many of these students as they knew about, but others did not. Sometimes "late deciders" were also late in requesting that an AP grade report from ETS be sent to the college they finally chose, or they may have deliberately waited to declare themselves as AP candidates. So the processing of AP candidacies can trickle along all year.

In going through transcripts, in order to fill in the rosters for me, several registrars noticed that some students had been given AP credit and were thought to have been placed ahead, but had repeated, for redundant credit, the introductory course their AP Examination grades showed them to have mastered. The registrars also found that other students had declined the offered credit so that they could repeat the introductory course. (At several of the participating institutions this option is supposedly not allowed.) There is no substitute for examining individual transcripts if one wishes to discover inconsistencies between colleges' AP policies and the way the procedures are carried out. Of course, I eliminated cases of underplacement from the study. I made comparisons of AP students and upperclassmen only in truly advanced courses that followed the introductory course, ordinarily taken as a freshman, whether in an AP school or at the university.

In looking at the completed rosters or student transcripts, we found that some students had apparently been placed in more advanced courses than others with the same AP grade in the same subject; i.e., they had been placed in a course usually taken in the junior or senior year instead of one usually taken by sophomores. Despite this anomaly, I felt it made sense to assume that all AP students had been placed in advanced courses that were appropriate for them.

At this point, it seems appropriate to present some statistics that give the reader a sense of the variations in proportion of AP students on each campus in the study. These data also illustrate attrition between the total qualifying AP Examinations taken and the actual placements in advanced courses that occur in the first two or three semesters at college.

In Table 2 the nine colleges are listed in descending order by percentage of AP students (whatever their AP grades) that make up the entire first-year entering class. As one can see from the first column, AP students make up 66 percent of first-year students at College A and only 8.5 percent at College I. The second column presents the ratio of AP Examinations to AP candidates. AP students entering College A not only represent a greater proportion of the first-year class, but they have also taken, on the average, more AP Examinations than students attending the other colleges. The AP students attending College H have the lowest ratio of AP Examinations to AP students, 1.43. This may well be an indication of the limited AP offerings in the schools from which College H draws a majority of its students. (The total program average was 1.45 AP Examinations for college-going candidates in 1985.)

In Column 3 the ratio of AP Examinations with grades of 3, 4, or 5 to all AP students is presented. Such grades qualify students for credit and placement in most departments at participating colleges.

The fourth column presents the actual first-year enrollments in advanced courses that were included in this study. Far greater variation exists among the figures in Column 4 than in any of the others. We find almost one case of advanced placement per AP student in College A during the first year; in College I, however, the ratio drops to one in eight (.12) even though qualifying AP Examinations are .92 per student.

Only part of the variation is due to the differences in the ratios of AP Examinations with grades of 3 or higher per AP student. The rest of the variation reflects a number of variables. Among these are differing college policies in regard to one or another AP Examinations (these are discussed later in the report) and differing curricular emphases of the colleges and the students. For example, on several campuses the curriculum for the first year or two is heavily

weighted toward the liberal arts for most students, no matter what their majors will be. At other colleges, students enroll directly into a business or technical major in which the curriculum is prescribed for the first year or two. Room for electives in the humanities comes later in the students' college careers, but their advanced placement in such studies is already assured. Column 5 (derived in Table 2) gives the unweighted means of differences between AP to non-AP student performance in the relevant advanced courses across the Program's various fields at each campus, with a letter grade being the unit of the scale.

Problems in Retrieving Comparative Data

The process of retrieving the information needed to compare the performance of non-AP with AP students in the relevant advanced courses proved, on a few campuses, far more difficult than gathering information on AP students. Easy accessibility of end-of-course statistics proved to be the exception rather than the rule. On three campuses, the relevant data had to be reconstructed from individual professors' grade rosters. And sometimes, professors' grade rosters were not kept in a central location.

At best, the work on these records was done by an employee of the college who was familiar with and authorized to work on such records, but at several universities my colleagues' staffs were chronically overworked. I finally had to adjust to the realities of shrinking budgets for college administration and modify my requests. Several of the institutions studied did not keep records permitting easy comparison of achievement between groups of students. On these campuses I had limited success in retrieving general end-of-course grade statistics. A few of the universities did keep summary statistics (frequency distributions and means) on student performance in all courses. (At one college these were kept in volumes by semester. The volumes were bound in such a way that they were difficult to use or to reproduce.) At some colleges these same data were on-line, where they were easily accessible for research purposes. All I had to do was subtract the end-of-course grades of AP students from the frequency distributions to have the distributions I required.

But other institutions do not generate these statistics routinely. There were some instances, particularly in College C, in which a mean grade was the only available statistic for student performance in a course; class size and frequency distributions of grades were not available. In these cases the mean grades of AP students were compared to this course mean (in which AP students' performance was already represented).

To summarize, in ideal cases, comparisons were made between AP and non-AP students — two non-overlapping frequency distributions. In other cases, the mean AP grade was compared to the mean of the total group (number unknown) of all students. In this case AP students contributed to the mean they were being compared with. The differences between AP means and total class means are therefore conservative estimates; they are never larger than the difference between nonoverlapping distributions.

With great reluctance I gave up the idea of comparing frequency distributions and means for AP and non-AP students in *all* relevant advanced sequent courses. At colleges that seemed understaffed, I asked for grade rosters only for those courses in which three or more AP students had been enrolled. Since some of the courses with two AP students each had 10 to 20 sections, the data retrieval task was considerably reduced. At several universities there were more than 80 advanced sequent courses in which only one AP

Table 2. Summary Data on 1982 AP Students Within and Across Colleges

	1	*2*	*3*	*4*	*5*
College	*All AP Students as Percentage of Entering Class*	*AP Examination per AP Student*	*AP Grades of 3, 4, or 5 per AP Student*	*Advanced Enrollments per AP Student*	*Unweighted Means of Differences Between AP and non-AP Performance*[a]
A	66.0	2.35	1.57	.91	.164
B	52.7	1.68	.94	.47	.825
C	32.8	1.85	1.24	.83	.293
D	30.0	1.61	1.03	.41	.410
E	23.3	1.46	.87	.54	.840
F	17.6	1.56	.83	.33	.790
G	14.1	1.47	.86	.30	.092
H	13.5	1.43	.89	.27	.298
I	8.5	1.52	.92	.12	.707
Mean across colleges:	(28.7)	(1.66)	(1.02)	(.46)	(.491)
Median:	((23.3))	((1.56))	((.92))	((.41))	((.410))

[a]A letter grade is the scale used in these statistics.

student had enrolled. In such instances I did not ask for comparative statistics since many of my hosts were doing this retrieval work by hand. Thus, although in these cases no comparisons with non-AP students were made, the data show that more than three quarters of the AP students did well enough to get honors grades (i.e., B's or A's). That seems to indicate that their placement was deserved.

In the process of working with the college grade rosters, I rediscovered that there was great variability in the range of grades assigned by different professors in the same course. Some courses had more than two dozen sections and, quite naturally, the same number of graders. Some of the graders seemed to be either quite idiosyncratic in their grading practices or to have had unusual students. There is no way of determining whether the students in one section, whose roster showed no grades higher than C + and many failures, were really less capable than those in another section, in which all students were awarded A's or B's, or whether the professors were using different grading standards. I decided to compare the achievement of AP students with the achievement of non-AP students in the course as a whole. In some cases, it might have been more appropriate to compare the AP student to others in his or her section, but it is often difficult to determine which section an individual is in at large universities.

Because of the limitations in the data noted above, I decided to collapse the comparison of AP outcomes to non-AP performance in each advanced course into a single weighted statistic for each AP Examination at each university.

The following is an explanation of that statistic: For each advanced course that an AP student had been placed in as a result of his or her performance on an AP Examination I

- Subtracted the mean end-of-course grade earned by non-AP students from the mean end-of-course grade earned by AP students in the course, deriving a difference between the two (generally a positive number like .17 or .44),
- Weighted each difference by first multiplying it by the number of AP grades that contributed to its derivation,
- For each AP Examination (which may have led to placement in one or many courses), I derived (if possible) a weighted difference between AP and non-AP grades by adding the products (obtained in the second step) and then dividing that sum by the total number of AP grades that it contained.

These data are presented in Table 3 and express – for each examination – the difference between the mean grades of AP and non-AP students in advanced sequent courses in that field weighted according to the respective numbers of AP enrollments in each.

To the extent that these differences are positive, they show AP students as a group performing better than did the local upperclassmen in those advanced sequent courses.

This somewhat crude comparison of "qualified" AP students to collegiate upperclassmen seemed the most appropriate measure at my disposal. Their various AP Examination grades reflected the benefits they derived from the actual AP courses at their separate schools. I could well imagine a strong student in an experimental AP course at a school new to the Advanced Placement Program, working hard to get a 3 on the examination and then going on to get honors grades at college in advanced courses in the field. Conversely, I could easily conceive of a middling sort of student in a strong, effective course getting a 4 or 5 with ease on the examination and then getting middling grades when placed ahead at college. The test, it seems to me, was not how well the AP grades *correlated* with those in advanced sequent courses at college, but rather how well the AP grades *identified* students prepared to perform acceptably well when placed ahead. And so I took the performance level of the local upperclassmen in these courses as my ad hoc measure of "success" against which to lay the weighted AP outcomes, field by field.

Table 3 represents only 17 of the 22 AP Examinations available. The AP offerings that were deleted – studio art, the two Latin courses, and the two music courses – generally have fewer examinees than the other AP subjects. At some of the nine colleges, no students presented AP Examinations in one or another of these fields, or the few students who had taken the examinations either didn't qualify for placement or qualified but chose not to study that field during their first year or year and a half at college.

The tendency to postpone advanced work in AP fields not connected to one's probable major is quite understandable. Students who are awarded credit and who have the opportunity for advanced placement frequently concentrate on fulfilling their remaining distribution requirements so they can move swiftly into their majors.

For the AP fields in which we had sufficient data to calculate weighted differences for six or more colleges, we also calculated the unweighted means of those differences to give a quick overview of the performance of AP students versus upperclassmen in each AP field across colleges. These means range from a low of .241 for English literature and composition and Spanish literature to a high of .875 for calculus AB and .762 for calculus BC.

In the last column of Table 3 the unweighted differences of AP to non-AP performance in advanced courses across AP fields within each of the colleges are presented. Although I recognize that this pooling across diverse fields within colleges may seem to some as lumping apples and oranges together or worse, apples and fish, it does demonstrate that, whatever the experience with AP candidates of individual departments within the participating colleges, collectively AP students on these campuses have done quite well.

Table 3. Weighted Mean Differences Between AP and Non-AP Students' Performance in Advanced Courses by AP Examination Field Within University

College	*Art History*	*Biology*	*Calculus AB*	*Calculus BC*	*Chemistry*	*English Language + C*	*English Literature + C*	*French Language*	*French Literature*	*German Language*	*History, American*	*History, European*	*Physics B*	*Physics C (Mech only)*	*Physics C (Mech and E + M)*	*Spanish Language*	*Spanish Literature*	*Unweighted means of differences in AP and non-AP performance by college*
A		−.13	.47	.74	−.27	.51	.22	.28	.14	.36	.12	.02				[−.08]*		.164
B		.82	1.04	.99	.95	.27	.44	.44	.86				1.28	1.29	1.12	.51	.71	.825
C	.44*	−.20	.55	.04	.27	.30	.34				.47	.05	.44*	.52				.293
D		1.56	.28	.74	.54	.09	−.24				.13					←.18→*		.410
E			1.97	.98	1.76	.63	.39						2.26	2.26	2.26		.75	.840
F			1.56	.86		.28	.63	←.62→										.790
G		−.87**	.45	.88			−.05	.28	−.14									.092
H			.76	.78			.20				−.18						−.07	.298
I		.65	.80	.85	.69			.67		.53*			1.24*	1.74*			.25*	.707
Unweighted means of local differences at 6 or more colleges		.305	.875	.762	.366	.347	.241										.290	.491 / .455

← → indicates students took both examinations in field

[ ] indicates specific examination (language or literature) not noted

* indicates statistic based on less than 20 students

**The students represented by this aberrant ratio were experiencing a range of personal problems unrelated to their preparation in the subject (see "A Few in Trouble").

AP STUDENTS SHARE THEIR POINT OF VIEW

Talking Back to the College Board

> "So the College Board wants to know what I think? I think it's unjust. Do you know there are kids in my dorm that never even heard of AP before they came to college? The College Board should *insist* that all schools offer AP."

> "Well, somebody's not doing their job. I mean the College Board should *legislate* that schools offer AP. I came here with credit for five AP's and am now a second-semester junior with double majors in poli sci and Russian literature. Could I be doing this without AP? Of course not. But there are lots of students who are just as bright as I am. Brighter! And they're slogging along and it isn't fair. . . ."

The College Board should "require," "insist on," "coerce," "demand," "mandate," "legislate" Advanced Placement classes "for every student who's motivated and able to do the work." These verbs are forceful, and they were used over and over. These candid reactions to my open invitation to "talk back to the Board" seem too strong and too consistent to ignore. The students may have misconstrued the nature and power of the College Board; they did not, however, have any misgivings about their AP courses in their schools.

How High School Students Got Involved in AP

> "I'd taken everything else, and there was nothing else to do but get on with it." (five qualifying AP Examinations)

> "My older brothers would have killed me if I hadn't. They knew what the advantages were. . . ." (four qualifying AP Examinations)

> "I took AP courses because it was the only way I could escape from the general chaos. . . . You know, kids who don't want to be in school at all and teachers who spend all their time trying to keep order." (four qualifying AP Examinations)

> "We sat down at the kitchen table and figured it all out. Every AP course I could take in high school would save at least $350 in college." (three qualifying AP Examinations)

> "I like challenges. Fortunately, I did well in tenth-grade English. That teacher was the gatekeeper to AP in our school. Without her approval you had a hard time. . . . Oh, a few kids fought to overrule her and they did. But not many." (two qualifying AP Examinations)

The paths that lead to participation in the AP Program have increased during the past two decades. In increasing numbers of schools AP courses have become the natural outcomes of accelerated programs for the gifted and talented and *moti-*

vated that start in the junior high school years or even earlier. AP courses are now available through various nationwide talent searches conducted among seventh- and eighth-graders. In some systems, the Preliminary Scholastic Aptitude Test (PSAT/NMSQT) is being used to identify students who may be ready for the challenges that AP courses offer. In some schools student performance in eighth- or ninth-grade mathematics or in tenth-grade English may determine who is invited to take AP offerings and who must fight to get in. I interviewed students who had taken both of these paths. The students' personal reasons for taking on the extra challenge of AP classes (when they had a choice) were far more diverse than I had anticipated. I had expected a large proportion of students to report that AP was the natural capstone of earlier acceleration, or that their participation was the result of a burning interest in specific subjects. These suppositions were true for many, but I did not anticipate that so many other interviewees would mention encouragement (often in the form of good-natured browbeating) from older relatives who had taken AP courses themselves, or that so many would report having figured out (as sophomores or juniors) with their parents how AP could reduce the costs of college. Nor had I thought of the possibility that some students would be drawn to AP classes primarily because they provided a structured and quiet refuge from disruptive and uninterested classmates. A number of students from large urban schools mentioned AP as a refuge.

The Advantages and Disadvantages of AP in High School

> "I had all the best teachers." (three qualifying AP Examinations)
>
> "Taking AP courses in high school was like deciding to come here to college. I'm a runner – good enough to be the very best in lots of colleges that wanted me. But I thought, if I go somewhere where I'd already be the best, I'd never stretch and know how good I could be. Here I'm part of a world-class team and I'm much better than I was." (three qualifying AP Examinations)
>
> "It was great to be considered one of the serious students in my high school. It really boosted my self-esteem." (two qualifying AP Examinations)
>
> "My AP course completely destroyed my self-confidence. And I think your readers must be crazy." (one qualifying AP Examination)

Almost all the students in the study mentioned at least two of the advantages quoted above in talking about their AP status in school. And unlike the students in my earlier study, few were concerned with social exclusivity or mentioned any negative consequences at all connected with participation in AP. A few said that their AP teachers were the most idiosyncratic and by no means the best in their departments and that they wondered if those teachers' appointments had something to do with either seniority or special pull with the principal. Even so, most students who had such AP teachers earned qualifying grades on the appropriate AP Examinations. Only two students reported taking a course designated "AP" that was "totally unrelated" to the AP Examination or "totally inadequate." In both instances, the course was being offered in each school for the first time.

Several students were convinced that the AP readers were "simpletons" or "deranged" because the students had received 4's or 5's (mostly 5's) on their AP Examinations but had gotten C's and B's in their AP classes. The result of the cognitive dissonance set up by this disparity in grading between "known" teachers and "unknown readers" was always resolved in favor of the teacher. Even when the students were doing exceptionally well at college, having been placed ahead in advanced courses, they took no pleasure from their achievement and thought themselves either lucky or frauds. (This should serve as a warning to AP teachers to hold students to high standards, but to calibrate grading practices with those of AP readers. One can do this by getting the AP free-response booklets back from ETS and going over them thoroughly. Otherwise, exceptional rigor can well become debilitating instead of life-enhancing for your students!)

The Decision to Take the AP Examination

> "We knew at the beginning that it was a requirement of the course." (two qualifying AP Examinations)
>
> "Our teacher explained that if we didn't take the exam, she'd never get any feedback on how she was teaching the course." (one qualifying AP Examination)
>
> "I took five AP courses in my senior year but I'd gotten a 4 in American history in my junior year and also a 4 in biology. So I decided to take only three more AP exams in the courses I was most confident in. After all, I only needed three AP exams with grades of 4 or better to qualify for sophomore standing, which was my objective." (five qualifying AP Examinations)
>
> "I took two exams but not the AB calculus. The concepts had passed me by. My teacher and I talked about it and we agreed that mathematics was not my forte, and that if I ever needed the calculus, I should take it again." (two qualifying AP Examinations)

It is no longer commonplace for students to agonize over whether to take AP Examinations or to have their cars fixed and go to the senior prom. Since my last study of AP outcomes in the lives of students, there seems to have been a welcome shift toward prior commitment to taking the examination.

There are several reasons for this shift. Among them are teachers' stated needs and desires to measure themselves against some national standard; feedback from former students about the advantages that accrue to AP status at college; and the perception of students and their parents that the cost of AP Examinations is miniscule when compared with steadily rising costs of a year of college, even at public

institutions. When one young woman was suffering pre-AP Examination jitters, she reported that her father, a logger, encouraged her to take all three she was signed up for: "I'd rather bet on you, Jill, than a turnaround in the lumber industry."

A few of the students I interviewed reported that some of the very best students in their AP classes – ones with their eyes on graduate school in medicine and law – tried to avoid taking the AP Examinations and, when they found they were required to do so by the AP teacher, never had their AP grades sent to their colleges. They intended to duplicate their AP studies in college in the hope of getting better GPA's than other pre-law and pre-med students. It seems to me that medical and other graduate schools could discourage this silly, harmful practice by issuing statements emphasizing that they look at the depth of learning and challenges accepted in course-taking behavior during the secondary and undergraduate years rather than relying primarily on GPA.

There are still instances when teachers and students agree that the student's performance in class does not augur well for doing qualifying work on the AP Examination or for the possibility or efficacy of advanced placement in college. May it always be so that teachers take into their AP classes a few students who are not sure "winners" rather than restricting the enrollment in AP classes to those they are certain of in the beginning! The general trend, however, is to take as many AP Examinations as the student feels he or she has a decent chance to make qualifying grades in, and to accept all the credit and placement the college offers. This increases students' ability to complete double majors, (often one they loved and one more immediately relevant to the job market after college), to study abroad, or to volunteer for internships that may earn few or no course credits but were intellectually challenging and life enhancing.

Those who reported thinking of the opportunities listed above while still in high school often reported looking carefully at the AP policy statements of the colleges they were considering. Some did further research and called colleges directly to ask for clarification.

> "I got twice as much credit here as I would have at [a rival, equally reputable, institution] and it was important because I'm going to be the first one [here] to graduate with a triple major [business and two fields of engineering]. Kids should really check it out."

This student is correct. Colleges' general AP policy statements may seem very similar from catalog to catalog, but students should realize that deceptively simple statements that colleges award placement for AP grades of 3 (or 4 or 5) can mean credit for and placement out of a course lasting only one quarter or semester to credit for and placement out of three quarters or a full year. In foreign languages, colleges are apt to be more generous, but still there are large variations. In foreign literatures, some give one year's credit for the survey literature course the student is placed out of. However, a few colleges give credit as well for the two years of college study that would have preceded that course had the student entered college never having studied the language before. (This practice seems unduly generous, but it is often consistent with other policies at the campuses concerned.) The most helpful statements not only identify the exact course a student will be placed out of but how much credit he or she will receive and what his or her course options are after that.

The Transition to College

> "Summer orientation was disorienting! I'd taken five APs but didn't have the results of those I'd taken in my senior year. I'd thought I'd done well [and would get placement and credit] but my adviser was no help in planning a tentative program for a sophomore with my interests. To my questions, she'd answer 'I don't know, I'm a freshman adviser.' I ended up running all over campus to try to talk to people.... And some weren't there until fall. But finally...." (four qualifying AP Examinations)

> "My adviser was really helpful and we'd worked out a good program that carried me right on [from AP work] but when I got to the desk, the math course I wanted was full and there were hundreds of people behind me and I didn't want to hold them up and I was embarrassed because I didn't have an alternative so I said 'How about an introductory calculus course?'" (two qualifying AP Examinations)

> "It was great arriving on campus pretty sure I'd get sophomore standing knowing I wouldn't be among the lowest on the totem pole. But then I wondered, can I go to the special events for freshmen?" (four qualifying AP Examinations)

Many students reported initial difficulties and/or confusion in choosing a first-year program of study during early summer orientation periods because neither they nor the colleges had received 1982 AP results by that time. (Perhaps colleges could schedule all AP candidates for late summer orientation.) And some advisers counseled AP students to plan for the worst case and not for the most optimistic. This approach tended to rekindle the latent doubts that even the best prepared and brightest students have about their abilities. But most AP students eventually ended up in the right places (with a few notable exceptions to be discussed later) and found that they were far better prepared than they had thought. Those who rejected credit and placement and repeated an introductory course, either from temporary loss of confidence or in order to build "a great GPA," generally regretted it bitterly as a waste of time. Some college policies do not permit students to reject credit (and therefore placement if and when they go on in the field). If a student really finds himself in trouble after the first couple of weeks, he can be allowed to drop back without penalty. But one would think that college policies would encourage students to tackle advanced courses rather than to play it safe, and be bored, and still pay for credit already "paid for" by a qualifying grade on the appropriate examination.

Unfulfilled Needs and Unexpected Benefits

> "Upperclass mentors should be matched with incoming students with similar amounts of credit and placement and/or major field or interests. . . . Such matching is important so that the mentor can impart useful knowledge about 'who's who and who's to avoid' in the department, and about the way it works."

> "There are all sorts of informal bits of knowledge that the first-year student may miss when they place out of the introductory course."

> "It helps if you know someone who's been through being 'almost a sophomore' or for that matter 'more than a sophomore' and living in a first-year dorm."

> "Can one go to activities for first-year students if one is technically a second-, third- or fourth-semester student? I had no one to ask."

> "What about eligibility for various categories of athletic teams?"

As students enter college with more and more qualifying AP Examinations behind them and are awarded greater amounts of credit as a result, increasing attention will have to be paid to the social and extracurricular implications of advanced standing.

All the quotes above came from a single group interview with students who found during the discussion that they were all in the same program with the same general goals. Their first reaction was that they were glad they'd *finally* found (or identified) others in their program like themselves. They wished that they had known one another sooner so they could "commiserate about our uncertainties." It was this group that evolved the idea of an upperclass mentor program for meeting the needs many had experienced. By the end of our long interview they had decided to form such a group for next year's AP candidates, and went off to find an administrator with whom to talk the idea over.

One student in the group hung back and asked with a twinkle in his eye if I were curious about his transcript. Indeed I was, but hadn't wanted to question it in a group discussion. This young person had eight qualifying AP Examinations. He had taken five during his senior year. "In our school," he explained, "they prepare us for AP and the International Baccalaureate examinations in the same classes. So just for fun I took both. Imagine! Credit for 10 full year college courses for one year's work in high school. Of course, it's a mistake and I'm just waiting for someone to question it, but so far no one has." He received credit for 13 courses in all, a fact that put him well into his junior year when he arrived at college.

One student who had "stumbled onto" a mentor early in his college career learned that there were some unexpected, nonacademic advantages of placement into upperclass status: not only a better chance to get into the sections of classes he wanted, but better housing and better tickets to football games! This student, a junior who was attending a Big 10 university on a shoestring, managed to resell his season passes for enough money to fund an entire semester's fees. And he could hardly wait to be classified a senior because he expected to be able to finance his first year of graduate school on the proceeds of his football ticket sales.

AP candidates as well as other college students of the early 1980s have been shaped by different currents than those entering college in the sixties and seventies. Both opportunities and personal urgencies and anxieties seem greater, especially, but by no means exclusively, for women. For students from blue-collar and lower middle-class backgrounds, parental pressure to study something that will lead directly to a job after graduation is very strong. Parental expectations also lead to a good number of misgivings – guilt and depression connected with majoring in, not the object of one's heart or intellectual proclivities, but fields like computer science or accounting where there are perceived to be unlimited and immediate job openings.

A Few in Trouble

> "I guess you wanted to see me to ask 'What happened to that brilliant boy with credit for four APs?' Well, I'll tell you. He was pushed and pushed starting in the seventh grade, and when he got to college he was tired and decided to hell with it. . . . He discovered booze and fraternity parties and rested. . . . The trouble is I ended up with a GPA of 1.7 and by rights shouldn't even be here. . . . Now, I'm trying to pull myself together, but it's not easy. I've forgotten the habit of discipline."

> "I got placed ahead in three courses, but the advanced courses were still no challenge. And I didn't know anyone else around here quite like me, I mean with similar experiences in high school; and I really felt out of place. And I sort of drifted, lost interest, and didn't go to class. . . . This year I've tried to take myself in hand."

> "I'd never met so many different people before college or had much social life. I was overwhelmed by the social adjustments."

> "There were a lot of crises in the family. Lots of sickness and then my parents divorced."

> "I think I had an identity crisis. I know I had a broken heart and I wasn't ready for the cutthroat competition from the pre-meds. The year was a horror."

Only 5 students among the 160 AP students initially chosen for interviews were having serious academic difficulties: 2 on one campus and 3 on another. On a third campus, the registrar programmed the computer to print out in a special run all AP students who had matriculated in September 1982 and who had GPAs under 2.5 (C +). He suggested I see them and try to ascertain the source of their difficulties and how the university could help them. Only 14 out of close to 1,000 AP candidates on that campus fell into this category, a remarkably low proportion compared to general statistics for first-year college students. More than half of these 14 AP students had run into trouble when they entered directly into the engineering curriculum and discovered that they really didn't

like the field. They were ill-suited to two simultaneous transitions: the one, into college and the other, out of the area in which they had expected their careers would be. All but one of the others, according to their own reports, were "seduced" by one or another aspect of the social environment (or by growing up). The exception was a very sensitive young woman from an urban working-class family who simply felt overwhelmed and out of place among her classmates, all of whom she perceived as richer and more worldly than she. She was simply too lonely and depressed to perform academically and was seriously thinking about transferring to a "less elite" college closer to home.

None of these students attributed their academic difficulties to the advanced placement they had received. And, in fact, their grades in their advanced courses were no worse than those they received in their other courses.

A Problem in English

> "The most valuable thing I learned in AP? To think and to write. We turned in something *every* day. And it was corrected, line by line, and returned the next day." (qualifying grades in three AP Examinations including English literature and composition)
>
> "In AP courses, we wrote and wrote and wrote. I learned to analyze a document, a point of view, to compare and contrast, to summarize and to write an essay on anything." (qualifying grades in two AP Examinations)
>
> "To analyze and to write. Essays are my forte. What kind would you like, descriptive? Expressive? Persuasive? Narrative? I can also bang out an editorial or a news story under the pressure of a time limit . . . or pressure myself to keep working away on a long-term project." (qualifying grades in four AP Examinations including English literature and composition)

Two colleges in the study, concerned that students in general – even the best – lack adequate writing skills, have in recent years instituted composition courses that are mandatory for all first-year students. They grant no exemptions for qualifying grades on either the AP Examination in English language and composition or the English Examination in literature and composition. Neither of these college courses gets a passing grade from AP English students!

The students loved their AP English courses and valued highly both their teachers and the careful evaluation of their papers. The college composition courses were found by students to be less rigorous than what they had become used to in their AP classes. The reading assignments were frequently the same as those already covered. And the class discussions were by and large more superficial, as was the criticism of their weekly two- or three-page papers. Some students reported not having gotten one word of comment from their instructors during the entire course in college, only a grade. Others reported that comments were limited to such things as "nice idea" or "good idea but you should have developed it further." "How would I ever have learned to write with feedback like that?" was the rhetorical question raised again and again. Students felt it doubly frustrating to cover the same material they had covered in high school, but with a less sophisticated and rigorous mode of instruction.

Teachers of a few such sections recognized that the AP students didn't need the course and told them they didn't need to appear for class or turn in papers. This benevolent collusion solved the problem in a negative way but still denied students the opportunity of taking a more interesting and challenging course in English or indeed, of using that slot in their curriculum to explore another field. Instead they were paying tuition for a chance to be excused.

The Problem of Contingent Credit

> "It may not hurt students who are going to be majors but it sure hurt me. I had a spot for one elective and wanted to go on and take a course in anatomy but couldn't because I got a 3 in AP Biology and would have had to take the introductory course first."
>
> "I came here with grades of 3 in biology, chemistry, and physics B and it turned out I didn't get credit for any of them because in each field it was contingent on getting a B in an advanced course. Well, I chose a course in biology that was a killer. The highest grade in my section was C + , one of which was mine. The highest grades in the course were two B's. But no B, no credit. I wish they had assigned grades on a curve!"

In the early days of the Program, the policy of awarding "contingent credit" to AP candidates with examination grades of 3 if and when they achieved a grade of B or better in an advanced course in the same field was understandable. It was, after all, a way for colleges and universities to assure themselves that the College Board's recommendation that a grade of 3 garner placement and credit for AP was appropriate for *their* institution.

However, the Program is now 30 years old, and most colleges and universities with substantial AP candidacies have had two decades or so of extensive experience with the AP Program and the students who participate in it. They know, if they have paid attention, that the syllabuses of the AP courses are under constant review and are changed to reflect new emphases and advances in each field. These educators have had plenty of time to observe the performance of AP students in their advanced courses.

Departments or individual professors could and should monitor the performance of AP candidates in their advanced courses year by year. But most of them don't. Most of the time professors don't even know who their AP students are unless they identify themselves (which most are loath to do) or unless they are required to appear before someone in the department during the orientation and registration process. Professors who insist on contingent credit for AP grades of 3 are usually thinking about students who are potential majors. Their conservative stance reflects their concern that such students be firmly and thoroughly grounded in the pro-

fessor's perception of the "fundamental knowledges and skills of the field." Their concern is understandable. However, most AP students are not going to major in that field, whatever it is. Several factors are responsible: First, two of the most popular undergraduate majors, business and engineering, are not represented in AP course offerings. Second, the AP courses a student takes are as frequently defined by forces beyond his control (e.g., what courses the school offers and when) as by his own specific proclivities. (Only a small fraction of AP candidates come from schools that offer a broad range of AP courses.) Third, the number of AP examinations written per AP candidate is now 1.4 and rising. As it rises, the probability that AP candidates will major in any one of their AP field falls: They can take AP Examinations in several fields but generally major in only one.

On one campus I was asked to talk with a very irate professor of biology who was determined to make his department's policy on AP more conservative because of the relatively poor performance of (and his personality clash with) *one* AP student who was placed ahead on the strength of an AP Examination grade of 3. He had discovered the AP connection in a stormy conference with the student. What he didn't know was that a third of his class had similar AP backgrounds and were doing very well.

All in all, it seems that policies of contingent credit for AP grades of 3 penalize more students than they help because they require students to continue in the field and use up a "slot" in their academic program in order to collect the credit. And it was precisely to free up a slot for an elective or to fulfill a distribution requirement or to get deeper into a field of particular interest that the candidate took the AP Examination in the first place.

There is a way around this Catch 22. If a department is aware that a number of potential majors presenting AP grades of 3 have had serious problems when placed in advanced courses, it should require that such AP candidates be interviewed by a member of the department who is familiar both with the AP syllabus and with the local introductory course. Such a policy is carried out by a former member of the AP chemistry committee at one of the universities in this study. He constantly monitors the achievement of AP students in his department, and has found over the years that 3's are more variable than 4's or 5's in predicting success in advanced courses. When a potential major presents him with a 3 he wants to know whether the student has covered all the topics in the AP syllabus, or whether he was penalized on the AP Examination because of some lack in his AP course in high school. Such a person might be bright enough to make up his deficiency in short order and do well in an advanced course. Or the student might have had a bad day when taking the AP Examination but, in fact, be very well qualified to enter an advanced course. The interview usually resolves these questions.

The College Board recommends some type of review process for students presenting examination grades of 2. At two campuses in this study several departments adhere to this recommendation and follow a review process similar to that outlined above to ensure the proper placement of those students presenting AP grades of 2, defined by the Program as "possibly qualified." They have found that many students were ready for advanced sequent courses and achieved honors grades in them. The local AP policy did not permit granting these students credit; but by giving them advanced placement the college freed up a slot for another course, saved them from the boredom of repetition, and allowed them to move more deeply into the field. The professors in these departments, and the AP students awarded placement after such review, recommend that others adopt this procedure for AP grades of 2.

If potential majors with grades of 2 or 3 are denied advanced placement into the usual sequent course, recycling them through the introductory course will probably not solve any problem. No matter how wide the gap in their knowledge, *most* of the work will be a repeat of AP work in high school. All but a few of the most disciplined get "either cocky, sloppy, or bored, perhaps all three," according to one interviewee who knew others who had shared his experience. They majored in sciences other than the one they had taken in high school and repeated in college, because other fields seemed "fresher" and more challenging after a repetition of their AP course.

Those potential majors who had been denied credit but were placed instead in a "special fundamentals course" that presupposed a high school AP course fared much better than those who were bound to a standard freshman course. The professors who taught such "special" courses (in several fields on several campuses) were given high marks by students. They were seen as sensitive to the varying needs of individual students, flexible in their arrangement of topics, and creative in coming up with "novel experiments to illustrate familiar concepts." Several students remarked that being in a class with fellow AP students with "similar backgrounds from different schools" kept them on their toes. "We weren't just repeating what we'd had in the same old way, and we weren't in a regular introductory class where most of the kids were just trying to fulfill a requirement of some sort. We were all interested and motivated or we wouldn't have been there."

THE NEED FOR A CAMPUS AP COORDINATOR

The strongly positive comments of the AP students and the equally positive nature of their performance at college leave me convinced that the Program is well worth a college's serious, collaborative attention. Through such deliberate participation a college can encourage the Program's growth

in current AP schools and into new ones as well; it can attract the strong, persistent students characteristic of the Program; it can keep its elementary courses appropriately introductory in nature by facilitating the advanced placement of qualified students; in short, it can enjoy all the benefits of a reasoned system of curricular articulation with the secondary schools from which it draws its stronger students.

Yet a college's effective participation in the Program, while simpler than a school's, cannot be expected to occur of its own accord. As in other domains of educational administration, matters of information, definition, policies, procedures, research, and reports require a designated center with responsibility and authority for addressing problems. For the AP Program to help a college relate in this way to a generality of schools, it must be "national" and to some extent as external to each participating college as it is to each participating school. Institutions adopt – and adapt – it for purposes of curricular intercommunication.

Colleges that are serious about the AP Program and that are committed to serving their AP students might well designate one person to have these students as his/her primary concern. Harvard, for example, has had an AP official for advanced standing for over 30 years. This person would follow all students with AP experience throughout their undergraduate years, whether or not they (1) took AP Examinations but scored too low to be considered for placement and/or credit, (2) received credit, or (3) were placed ahead.

Often, a student's status as an AP candidate is not noted on his college transcript if he is not given or does not accept placement or credit – sometimes even if he is. This situation makes it difficult to do research on AP participants to ascertain how well the articulation between high school and college has worked for them. For example, was the university correct in doing nothing for students with AP grades of 2? Did such students continue in the fields of their AP work? Was the first year's course in college a challenge, or was it a boring repetition of work completed in high school? Few administrators have time these days to pursue the issues surrounding proper academic placement.

The need to follow up on the three categories of students mentioned above and to report the findings to the faculty is obvious, if faculty are to make informed decisions on AP policy. I would hope that these reports would include AP candidates' evaluations of how the college's policies and their own decisions in the light of these policies served their intellectual endeavors. Statistical information on how well AP students achieve in sequent courses is crucial, but it is not a full measure of appropriate placement or of the significance of the AP Program in either the lives of AP students or in the life of the college.

As an adjunct to collecting and disseminating these data, such a coordinator can be known as someone the professors (as well as the AP students) may turn to if they have questions about the practice of AP policy in their area. The AP coordinator would also be in a position to encourage and help either individual professors or departments to do studies or experiments before they insist on changing their AP policy.

The AP coordinator could maximize the efficiencies in articulation between the AP preparation of the students it admits and continuing challenges at college. Certain witnessed inefficiencies do remain at even the most caring institutions in connection with registration, freshman writing courses, contingent credit, deliberately retaking introductory courses and receiving "double" credit, to review just some problems I have mentioned.

In addition to the activities outlined above, the coordinator would be responsible for the following:

1. Training and overseeing advisers who would counsel AP students during precollege orientation and/or registration for first-year courses. Advisers would know how to help and encourage students to plan for advanced placement. A fallback position is easy, but the reverse is not true.
2. Setting up a mentor system for first-year AP students, using junior and senior AP students as mentors.

Such coordinators, with information at their fingertips about the progress of AP candidates through the college years, would be responsible for reporting to schools on the credit and placement awarded their AP candidates each year. Indeed, many good registrars do that now. But the advanced standing coordinators might also make periodic reports to schools on how well those placed ahead performed, as groups, in their sequent courses and share other reports of how AP students fare on their campuses as well.

They could represent, as caring advocates, their institution not only to schools but to the national Advanced Placement Program by identifying potential AP readers and possible committee members and consultants. They could also serve the national Program by sharing with other colleges their experience with AP students on their own campuses. At the same time, they would be caring advocates of the national AP Program to their institution as well.

SUMMARY AND CONCLUSIONS

1. Overall, AP candidates who are placed ahead in the field of their "qualifying" AP Examinations do better than a generality of local upperclassmen in those courses. The placement and credit policy suggested to colleges by the Advanced Placement Program seems justified and appropriate for the colleges in this study.
2. AP candidates react very positively to the AP

experience in high school and to the outcomes of their participation in college.

3. The difficulties encountered in collecting the necessary data to compare the achievement of AP students and upperclassmen have prompted a number of suggestions that colleges may wish to consider.
4. Comments by AP students have generated a set of recommendations for colleges that wish to deliberately foster a smooth transition into challenging college careers for future AP candidates. They point out the need for an official AP coordinator in colleges to serve both students enrolling with AP experience behind them and their colleagues on the faculty concerned with providing appropriate undergraduate education.